

# Understanding Basic Concept of Electrical and Electronic Systems

Asadullah Shah



IIUM PRESS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

# **UNDERSTANDING BASIC CONCEPT OF ELECTRICAL AND ELECTRONIC SYSTEMS**

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**Editors**

Asadullah Shah



**IIUM Press**

Published by:  
IIUM Press  
International Islamic University of Malaysia  
First Edition, 2011  
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Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Bibliography p.  
Includes Index  
ISBN

ISBN: 978-967-418-116-1

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM  
(Malaysian Scholarly Publishing Council)

Printed by:  
**IIUM PRINTING SDN. BHD.**  
No. 1, Jalan Industri Batu Caves 1/3  
Taman Perindustrian Batu Caves  
Batu Caves Centre Point  
68100 Batu Caves  
Selangor Darul Ehsan

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# 15. COMMON EMITTER AMPLIFIER WITH FIXED BIAS

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## 15.0 Abstract:

The transistor or triodes as their old name is, are active components used for switching purpose and as amplifiers. They have three terminals: Emitter, Base and the Collector. It is called the *common-base* configuration because (DC power source aside), the signal source and the load share the base of the transistor as a common connection point.

## 15.1 Introduction

An electrical signal can be amplified by using a device which allows a small current or voltage to control the flow of a much larger current from a dc power source. There are **several types of transistors but the most common** two general types of transistors, bipolar and field-effect. Very roughly, the difference between these two types is that for bipolar devices an input current controls the large current flow through the device, while for field-effect transistors an input voltage provides the control. The current at the base is typically one hundredth of the collector-emitter current. Moreover, the large current flow is almost